

SECTION 07710
MANUFACTURED ROOF SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Copings
 - 2. Fascia
 - 3. Gravel stops.
- B. Related Sections:
 - 1. Division 7 Section "Sheet Metal Flashing and Trim" for shop- and field-fabricated metal flashing and counterflashing, trim, and miscellaneous sheet metal accessories.
 - 2. Division 7 Section "Roof Accessories" for roof hatches.

1.3 SUBMITTALS

- A. Product Data: For each type of product specified. Include details of construction relative to materials, dimensions of individual components, profiles, and finishes.
- B. Shop Drawings: Indicate layout, joining, profiles, accessories, anchorage, flashing connections, and relationship to supporting structure and to adjoining roof and wall construction.
- C. Samples for Initial Selection: Manufacturer's sample finishes showing the full range of colors and textures available for units with factory-applied color finishes.
- D. Samples for Verification: Of the following products, in manufacturer's standard sizes, showing the full range of color, texture, and pattern variations expected. Prepare Samples from the same material to be used for the Work. Furnish straight Samples in lengths specified below or where corner pieces are required for Project; furnish corner Samples with each leg in lengths specified below:
 - 1. Copings: 8 inches long.
 - 2. Fasciae: 8-inch- long sections of each distinctly different fascia component, including scuppers and extenders (if any), exposed as finish work.
 - 3. Gravel Stops: 8 inches long, including scuppers if specified.

1.4 PERFORMANCE REQUIREMENTS

- A. General: Provide manufactured roof specialties capable of withstanding wind loads, structural movement, thermally induced movement, and exposure to weather without failing.
- B. Provide manufactured roofing specialties, incorporating roof edge treatment that complies with recommendations of FM Loss Prevention Data Sheet 1-49 for the following Wind Zone:
 - 1. Wind Zone 2: Wind pressures of 31 to 45 lbf/sq. ft..

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of manufactured roof specialty from one source and by a single manufacturer.

1.6 PROJECT CONDITIONS

- A. Coordinate work of this Section with adjoining work for proper sequencing of each installation to ensure best-possible weather resistance and protection of materials and finishes against damage.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide formed-aluminum copings, fascia, and gravel stops by one of the following:
 - 1. Merchant and Evans, Inc.
 - 2. Metal-Era, Inc.
 - 3. MM Systems Corp.
 - 4. Petersen Aluminum Corp.

2.2 METALS

- A. Aluminum Sheet: ASTM B 209, alloy and temper recommended by aluminum producer and finisher for use intended and finish indicated, and with not less than the strength and durability of alloy and temper designated below:
 - 1. Alloy 5005-H14, with a minimum thickness of 0.050 inch, for aluminum sheet with other than mill finish.
- B. Galvanized Steel Sheets: ASTM A 653, G90 coating designation; commercial quality; at least 0.034 inch thick, unless otherwise indicated.

2.3 COPINGS

- A. Provide copings in shapes and sizes indicated, with shop-fabricated corners. Include anchor plates formed from at least 0.028-inch- thick, galvanized steel sheet; cleats or other attachment devices; concealed splice plates; and trim and other accessories indicated or required for complete installation, with no exposed fasteners.
- B. Provide exposed coping components fabricated from formed-aluminum sheet in thickness indicated, but not less than 0.050 inch.

2.4 FASCIAE

- A. Provide fasciae in shapes and sizes indicated, with shop-mitered and -welded corners. Include water dams formed from at least 0.028-inch- thick, galvanized steel sheet; anchor plates; cleats or other attachment devices; concealed splice plates; and trim and other accessories indicated or required for complete installation, with no exposed fasteners.
- B. Scuppers: Provide scuppers designed and manufactured for use with fasciae and of the same material.
- C. Provide exposed fascia components fabricated from the following metal:
 - 1. Formed-aluminum sheet in thickness indicated, but not less than the following:
 - a. Thickness: 0.050 inch.

2.5 GRAVEL STOPS

- A. Provide gravel stops in shapes and sizes indicated, with shop-mitered and -welded corners. Include water dams formed from at least 0.028-inch thick, galvanized steel sheet; anchor plates; cleats or other attachment devices; concealed splice plates; and trim and other accessories indicated or required for complete installation, with no exposed fasteners.

- B. Scuppers: Provide scuppers designed and manufactured for use with gravel stops and of the same material.
- C. Provide exposed gravel-stop components fabricated from the following metal:
 - 1. Formed-aluminum sheet in thickness indicated, but not less than the following:
 - a. Thickness: 0.050 inch

2.6 ACCESSORIES

- A. General: Provide manufacturer's standard accessories designed and manufactured to match and fit roof edge treatment system indicated. No exposed fasteners permitted.
- B. Concealed Fasteners: Same metal as item fastened or other noncorrosive metal as recommended by manufacturer.
- C. Mastic Sealant: Polyisobutylene; nonhardening, nonskinning, nondrying, nonmigrating sealant.

2.7 FINISHES, GENERAL

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipment.
- C. Finish manufactured roof specialties after fabrication and assembly if products are not fabricated from prefinished metals.
- D. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are unacceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.8 ALUMINUM FINISHES

- A. Finish designations prefixed by AA conform to the system established by the Aluminum Association for designating aluminum finishes.
- B. High-Performance Organic Coating Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating or resin manufacturer's written instructions.
 - 1. Fluoropolymer 2-Coat Coating System: Manufacturer's standard 2-coat, thermocured system composed of specially formulated inhibitive primer and fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight; complying with AAMA 1402, Test Method 7.
 - a. Color and Gloss: As selected by Architect from manufacturer's full range of colors and glosses.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine walls, roof edges, and parapets for suitable conditions for roof edge system installation. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Promptly remove protective film, if any, from exposed surfaces of finished metals. Strip with care to avoid damage to finish.
- B. Prepare concrete, concrete masonry block, wood, and similar surfaces to receive coping system specified. Install blocking, cleats, water dams, and other anchoring and attachment accessories and devices required.

3.3 INSTALLATION

- A. Comply with manufacturer's written installation instructions. Coordinate with installation of roof deck and other substrates to receive work of this Section and with roofing insulation, roofing membrane, flashing, and wall construction, as required to ensure that each element of the Work performs properly and that combined elements are waterproof and weathertight. Anchor products securely to structural substrates to withstand lateral and thermal stresses and inward and outward loading pressures.
- B. Isolation: Where metal surfaces of units contact dissimilar metal or corrosive substrates, including wood, apply bituminous coating on concealed metal surfaces or provide other permanent separation as recommended by aluminum producer.
- C. Expansion Provisions: Install running lengths to allow controlled expansion for movement of metal components in relation not only to one another but also to adjoining dissimilar materials, including flashing and roofing membrane materials, in a manner sufficient to prevent water leakage, deformation, or damage.

3.4 CLEANING AND PROTECTING

- A. Clean exposed metal surfaces according to manufacturer's written instructions. Touch up damaged metal coatings.
- B. Protection: Provide protective measures as required to ensure work of this Section will be without damage or deterioration at the time of Substantial Completion.

END OF SECTION 07710